

## **ABSTRACT**

1 A method of seismic data processing is described in which a particular wavelet is  
2 selected from a plurality of wavelets as being most characteristic of a received seismic  
3 signal. A subtracted signal can be determined by subtracting a weighted signal of the  
4 particular wavelet from the received signal. From the subtracted signal, an additional  
5 particular wavelet can be chosen. The process of subtracting a signal and determining an  
6 additional particular one of the plurality of wavelets can be repeated until a criterion is  
7 met. The method can be repeated at several depths. The resultant spectral analysis can  
8 be used to determine, for example, an absorption coefficient.